# **Nuclear Material Stabilization** and Disposition (RL-0011)

D. B. Klos, Vice President of Plutonium Finishing Plant Closure Project/ (509) 373-3574



232-Z Scrubber Cell Entry





Facility Demolition Testing

#### **Overview**

This section addresses work in Project Baseline Summary RL-0011, Nuclear Material Stabilization and Disposition.

NOTE: Unless otherwise noted, all information contained herein is as of the end of November 2005.

### **Notable Accomplishments**

#### Disposition the Plutonium Finishing Plant (PFP) Facility

- The 234-5Z Material Access Area (MAA) elimination was completed November 17, 2005
- The 234-5Z/236-Z lay-up team pie-plated 287 glove box ports
- Shipped 14 solution containers for a total of 304 through November 2005
- 232-Z team completed four scrubber cell entries to remove process equipment
- Successfully completed mockup demo testing of excavator to be used for demolishing radiological facilities at PFP
  - Includes 232, 241-Z above ground structures and other less contaminated structures
  - Approved radiological controls in demo sequence
- Completed the Functional Design Criteria for the Interim Secure Storage Facility (ISSF)

## FY 2006 Funds vs. Spend Forecast (\$M)

|   | Projected FY 2006<br>Funding | FY 2006 Fiscal Year<br>Spend Forecast | Variance |  |
|---|------------------------------|---------------------------------------|----------|--|
| Nuclear Materials Stabilization & Disposition | \$ 128.4                     | \$ 128.4                              | \$ 0.0   |  |

#### FY 2006 Schedule/Cost Performance (\$M)

|   | Budgeted<br>Cost of<br>Work<br>Scheduled | Budgeted<br>Cost of<br>Work<br>Performed | Actual Cost<br>of Work<br>Performed | Schedule<br>Variance \$ | Schedule<br>Variance<br>% | Cost<br>Variance \$ | Cost<br>Variance<br>% | Budget At<br>Completion |
|---|--|--|-------------------------------------|-------------------------|---------------------------|---------------------|-----------------------|-------------------------|
| Nuclear Materials<br>Stabilization &<br>Disposition | \$17.2                                   | \$16.2                                   | \$17.3                              | -\$1.0                  | -5.5%                     | -\$1.1              | -6.6%                 | \$116.3                 |

Numbers are rounded to the nearest \$0.1M and include the closure services allocation.

## FY 2006 Schedule/Cost Performance (\$M), continued

Schedule Performance (-\$1.0M): Primary contributors to the unfavorable schedule performance include:

- (\$200K): Behind schedule performance on min-safe preventive maintenance (~78 percent complete)
- (\$545K): Behind schedule on 241-Z modifications supporting turnover due to impacts from bump and roll and redirection of team to focus on emergency response and issue resolution (use of constant air monitors in tent)
- (\$227K): Behind schedule in ISSF conceptual design, project support, nuclear and criticality safety, and environmental protection support

#### Partially offset by:

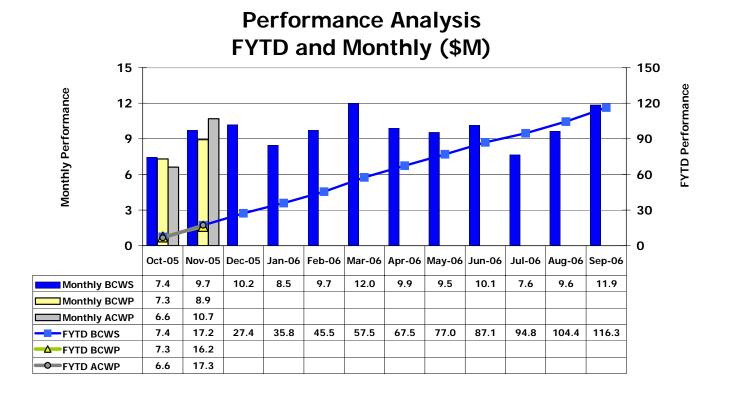
\$526K: Completion of FY 2005 schedule activities for fuel moves supporting MAA elimination

Cost Performance: (-\$1.1M): Primary contributors to the unfavorable cost variance include:

- (\$145K): Increased costs for Rad Con Calibration contract (rates higher than budget)
- (\$240K): Continued cost for 234-5Z D&D work with minimal performance claimed
- (\$1,543K): Apportioned D&D project management, solid waste, transition operations, and operations support Work planned in FY 2006 but performance claimed in FY 2005
- (\$221K): Increased cost for ISSF criticality safety contracts

#### Partially offset by:

• \$372K: Favorable cost progress in fuel moves supporting MAA elimination and vaults min-safe due to efficiencies in work performed.



## **Milestone Achievement**

| Number                   | Milestone Title  | Туре      | Due Date | Actual<br>Date | Forecast<br>Date | Status/<br>Comments  |
|--------------------------|--|-----------|----------|----------------|------------------|----------------------|
| TRP-05-501<br>TRP-05-506 | Discontinue Waste Discharges from the 241-Z Tanks to Tank Farms  | TPA<br>PI | 6/30/05  | 12/13/04       |                  | Complete             |
| TRP-05-504               | Complete Pu Legacy Holdup Removal                                | PI        | 9/30/05  | 6/30/05        |                  | Complete             |
| TRP-05-505               | Transition 10 Facilities to Slab-on-<br>Grade                    | PI        | 9/30/05  | 5/22/05        |                  | Complete             |
| TRP-06-500               | Decontaminate Glovebox HA-20MB                                   | TPA       | 3/31/06  | 10/28/04       |                  | Complete             |
| TRP-06-501               | Complete Pu Legacy Holdup Removal                                | TPA       | 9/30/06  | 6/30/05        |                  | Complete             |
| TRP-06-507<br>TRP-06-502 | Transition 232-Z Bldg Incinerator to Slab-on-Grade               | TPA       | 9/30/06  |                | 8/30/06          | Ahead of<br>Schedule |
| TRP-06-509               | Disposition Miscellaneous PFP Nuclear Materials                  | PI        | 9/30/06  |                | 9/30/06          | On Schedule          |
| TRP-06-515               | Complete 242-Z Initial Entry & Characterization                  | PI        | 9/30/06  | 10/5/05        |                  | Complete             |
| TRP-06-519               | Complete Conceptual Design for<br>Compliant Storage Facility     | PI        | 9/30/06  |                | 1/26/06          | On Schedule          |
| TRP-06-520               | Submit Preliminary Safety Basis Documentation (PDSA) on ISSF     | PI        | 9/30/06  |                | 5/15/06          | On Schedule          |
| TRP-06-521               | Submit SEP Project NEPA Documentation                            | PI        | 9/30/06  |                | 9/30/06          | On Schedule          |
| TRP-06-522               | Complete Design Sufficient to Initiate Construction MODS of ISSF | PI        | 9/30/06  |                | 9/30/06          | On Schedule          |
| TRP-06-524               | Complete Cell Preparation Phase for<br>Each of Five (5) Cells    | PI        | 9/30/06  |                | 9/30/06          | TBD                  |
| TRP-06-525               | Complete Tank Removal Phase for Each of Five (5) Tanks           | PI        | 9/30/06  |                | 9/30/06          | TBD                  |
| TRP-06-526               | Complete Formal Turnover of the Facility for Construction        | PI        | 9/30/06  |                | 9/30/06          | TBD                  |
| TRP-06-527               | Complete Demolition of Five DBT-<br>Related Ancillary Facilities | PI        | 9/30/06  |                | 9/30/06          | On Schedule          |